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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/362,982	07/30/1999	SHINICHI TANIGUCHI	003510-043	7542

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BUCHANAN INGERSOLL PC
(INCLUDING BURNS, DOANE, SWECKER & MATHIS)
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EXAMINER

SHERR, CRISTINA O

ART UNIT	PAPER NUMBER
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3621

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/362,982

Applicant(s)

TANIGUCHI ET AL.

Examiner

Cristina Owen Sherr

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 2-4, 8-15, 17-21 and 23-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5-7, 16, 22 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to applicant's amendment filed January 5, 2006. Claims 2-4, 8-15, 17-21, and 23-25 have been canceled. Claim 1 has been amended. Claim 26 is newly added. Claims 1, 5-7, 16, 22 and 26 are currently pending in this case.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 5, 2006 has been entered.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 5-7, 16, 22 and 26 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1, 5-7, 16, 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoshino et al (US 6,088,680A).

6. Regarding claim 1 –

Hoshino discloses a vehicle-mounted communication device (e.g. col 3 ln 6-17)

comprising:

transmitting/receiving means provided for communication of information with

road-side communication means located at a road side (e.g. col 3 ln 19-30);

relay means that relay the encryption information, received from the road side by said

transmitting/receiving means, to an IC card (e.g. col 4 ln 13-15) and that relays output

information encrypted by the IC card to the transmitting/receiving means, in an

undecoded state, the IC card includes a) storage means that stores user information

regarding a user for charge-processing (e.g. col 4 ln 30-35, fig.9, 11) and b) encryption

means that encrypts output information which is based on the user information and

outputs the encrypted output information, and that decodes encrypted input information

(e.g. fig 9,15; fig. 9,17); and c) output means that transmits a portion of the output

information in a state without being encrypted (e.g. fig. 9);

information display means that displays information (e.g. fig. 12,36); and

encryption information storage means in which the encryption information is temporarily

stored (e.g. fig. 9),

wherein the transmitting/receiving means stores the encrypted information in the

encrypted information storage means and transmits the encryption information stored in

the encryption storage means as it is(e.g. fig 9), and

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the information display means receives and displays the portion of the output information, which is output from the output means in the state without being (e.g. col 3 ln 6-60).

7. Although Hoshino does not specify an I/C card, but rather radio communication, it is well-known that both I/C cards and radio are known methods of wireless communication. It would be obvious to one of ordinary skill in the art to substitute an I/C card for radio, just as it is known that music may be broadcast wirelessly over the Internet or over the radio. Further, Hoshino describes "a frequency converting apparatus is used for an automatic toll adjusting system into which a storage medium is inserted. The storage medium has a radio communication function for storing adjustment information necessary for toll adjustment carried by each user and for exchanging information with the outside by radio communication . . ." (col 3 ln 65- col 4 ln 4). Such an insertable storage medium, is the functional equivalent of IC card.

8. Regarding claim 5 –

Hoshino discloses a road-to-vehicle communication device comprising: a vehicle-mounted communication device according to claim 1; and road-side control means being located at a road side, including road-side communication means provided for intercommunication of information with the vehicle-mounted communication device, and also including road-side encryption means for encrypting transmitted information and decoding received information (e.g. col 3 ln 35-50).

9. Regarding claim 6 –

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Hoshino discloses a road-to-vehicle communication device according to claim 5, wherein road-side encryption means of said road-side control means installed at an entrance gate effects encryption of transmitted information and road-side encryption means of said road-side control means installed at a toll reception gate effects only decoding of received information (e.g. col 4 ln 6-12).

10. Regarding claim 7 –

Hoshino discloses a road-to-vehicle communication device according to claim 5, wherein the transmitted information is accounting information regarding accounting processing of charged facilities (e.g. col 4 ln 16-22).

11. Regarding claim 16 –

Hoshino discloses a road-to-vehicle communication device according to claim 6, wherein the transmitted information is accounting information regarding accounting processing of charged facilities (e.g. col 6 ln 2-12).

12. Regarding claim 22 -

Hoshino discloses a vehicle-mounted communication device according to claim 1, wherein the encryption information is temporarily stored in the vehicle-mounted communication device in an undecoded state (e.g. col 6 ln 19-28).

13. Regarding claim 26 –

Hoshino discloses a vehicle mounted communication device according to claim 1, wherein the roadside communication means further transmits non-encrypted information (“plain-text”), and the information display means receives and displays the non-encrypted information. (e.g. fig. 34, fig. 33).

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14. Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may be applied as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Hurta et al (US 5,602,919) discloses a speedup for monetary transactions using a transponder in conjunction with a smartcard.

17. Jesadanont (US 5,451,758A) discloses an automatic non-computer network no-stop collection of expressway tolls by magnetic cards and method.

18. Chaum et al (US 5,485,520A) discloses an automatic real-time highway toll collection from moving vehicles.

19. Shigenaga et al (US 5,554,984A) discloses an electronic traffic tariff reception system and vehicle identification apparatus.

20. Maeda et al (US 5,926,546A) discloses a communication device and system for mobile encrypted communication.

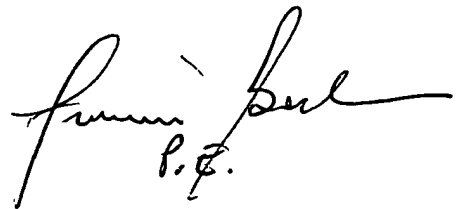
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21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cristina Owen Sherr whose telephone number is 571-272-6711. The examiner can normally be reached on 8:30-5:00 Monday through Friday.

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 571-272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

COS
03/06/06

A handwritten signature in black ink, appearing to read "James Trammell" with a stylized flourish at the end. Below the signature, the initials "P.T." are written.